

## CLAIMS

1. A spread spectrum system for generating a reduced amplitude clock pulse from an original primary clock pulse, the system comprising:
  - 5 a clock signal generator for creating a series of clock pulses;
  - a non-delayed line adapted to receive the series of clock pulses from the clock signal generator;
  - a delay line comprising a delay time and adapted to cause a clock signal transmitted to the delay line to be outputted after passage of the delay time; and
  - 10 a multiplexer comprising a non-delay line input, a delay line input and an output, wherein the multiplexer receives output directly from the non-delayed line and the delay line; and
  - a state machine adapted to cause the multiplexer to select either the non-delayed line or the delayed line.
- 15 2. A method for generating a clock output signal with reduced amplitude electromagnetic interference (EMI) spectral components, the method comprising:
  - providing a means to generate a series of clock pulses;
  - generating a series of clock pulses;
  - 20 digitally modulating the clock pulses by spreading the energy of each clock pulse over a greater bandwidth; and
  - generating a digitally-modulated clock output signal.
3. A clock circuit for generating a clock output signal with reduced amplitude electromagnetic interference (EMI) spectral components, the clock circuit comprising:
  - 25 oscillator means for generating a primary clock signal, wherein the primary clock signal has a fundamental frequency with a fundamental amplitude; and
  - spread spectrum clock generating means cooperating with the oscillator means for generating a spread spectrum clock output signal having a nominal frequency
  - 30 and reduced amplitude EMI spectral components at harmonics of the nominal frequency, wherein the nominal frequency is substantially equivalent to the fundamental frequency, and wherein the nominal amplitude is lower than the fundamental amplitude.